

C-4.5 Predict the percent yield, the mass of excess, and the limiting reagent in chemical reactions.

Revised Taxonomy Level 2.5-B Infer (predict) conceptual understanding

This concept was not addressed in physical science

It is essential for students to

- ❖ Perform stoichiometric calculations
 - Mass-mass
 - Limiting reactant
 - Percent yield

Assessment Guidelines

The objective of this indicator is for students to infer (predict) the mass of reactants needed or products that will be produced in a chemical reaction, to determine the quantity in excess and the limiting reactant, and to determine the percent yield in selected reactions. As this is conceptual knowledge, assessments should require that students understand the “interrelationships among the basic elements within a larger structure that enable them to function together.”, in this case, how mass, and mole ratios in a balanced chemical reaction can be used to determine predicted quantities which are needed or are produced during a chemical reaction.